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| 09/940,541 | 08/29/2001 | Takaya Sato | 0171-0778P-SP | 4738 |

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EXAMINER

CREPEAU, JONATHAN

ART UNIT PAPER NUMBER

1745

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Please find below and/or attached an Office communication concerning this application or proceeding.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/940,541
Filing Date: August 29, 2001
Appellant(s): SATO ET AL.

MAILED
JUN 23 2006
GROUP 1700

Gerald M. Murphy, Jr.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 27, 2005 appealing from the Office action mailed September 26, 2005.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct. It should be noted, however, that the term "separate" as used in line 2 of the summary is not recited in the claims. Additionally, the statement that "[i]n accordance with the present invention, the battery container and high polymer sheet are not laminated and united together" is also not reflected in the claim language. These issues are further discussed in section (10) below.

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(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

| | | |
|-------------|-------|--------|
| 10-208708 | Japan | 8-1998 |
| 2000-173564 | Japan | 6-2000 |

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-208708 in view of JP 2000-173564.

Regarding claims 1 and 3, JP 10-208708 is directed to a lithium battery comprising a cell structure group formed by folding an integral body of the unit cell (see Fig. 1). The unit cell comprises electrode material layers laminated through a separator (5) (see Fig. 1). The cell further comprises an electrolyte (see paragraph 17). Regarding claims 2, 3, 4, and 5, the outer periphery of the cell structure is covered with an ion impermeable and extensible high polymer sheet (65) (see abstract; Figures 1 and 2). The high polymer sheet has a tensile elongation

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percentage of 500-1000%, which is anticipatory of the range recited in claims 2, 4, and 8.

Regarding claims 6 and 7, the polymer may be polypropylene (see paragraph 17). Regarding claims 1 and 3, the battery comprises a battery container (foil 61), which is covered with a PET layer (62) on the outer surface thereof. Regarding the recitation in claims 1 and 3 that the electrolyte is poured in the battery container after the cell structure group is contained therein, this is a process limitation that does not further limit the structure of the claimed product. Accordingly, the limitation is given little patentable weight (MPEP §2113).

JP '708 does not expressly teach the battery container (61) is covered with an ion impermeable and extensible high polymer sheet having a tensile elongation percentage of 1% or more, as recited in claims 1 and 3.

JP 2000-173564 is directed to a thin battery bag body comprising an inner layer and an elastic thin film outer layer (see abstract; Figure 1). The outer layer may comprise the same material as the inner layer, which includes polypropylene and fluorine-based elastomers such as PTFE and PVDF (see paragraph 16).

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated by the disclosure of JP '564 to use a highly elastic thin film as the outer layer of the bag of JP '708. In the abstract, JP '564 teaches that "the outer rubber layer 6 is provided on the whole face of the surface of the bag body 1 so that the impact absorbing property can be drastically increased while holding the flexibility of the bag body 1." This disclosure would motivate the artisan to use the elastic rubber outer layer of JP '564 as the outer layer of JP '708. Although JP '564 does not appear to teach the exact tensile elongation value of the elastic outer layer, the artisan would

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be motivated to use a value within the range disclosed by JP '708 (i.e., 500-1000%) because the tensile elongation percentage is a measure of the elasticity of a material. Accordingly, the instantly claimed subject matter would be rendered obvious to the skilled artisan.

(10) Response to Argument

Regarding the JP '564 reference, Appellants assert that "as pointed out in paragraph [0027] of JP '564 and depicted in Figure 6 thereof, when a needle 17 penetrates the battery, the laminated outer layer 6 does not move into the battery and shield the electrodes from each other." However, it is submitted that the purpose of the invention of JP '564 is to prevent a needle from penetrating the laminated battery bag, which is the function embraced by the language in instant claims 1 and 3. For example, in paragraph [0025], the reference teaches that the "impact-absorption nature" of the outside rubber layer 6 was investigated using a needle drop method. The disclosure in [0027] cited by Appellants describes the situation where the needle has penetrated the bag. However, as disclosed in the abstract, as well as paragraphs [0025]-[0027], the clear intent of the invention of JP '564 is to provide a flexible outer layer having impact absorption property whereby the needle should not penetrate the bag. It is noted that Appellants further state that "[c]learly, the combination of JP '564 with JP '708 at best teaches a battery with a flexible layer laminated (adhered) to its outside." It is agreed that the combination of references teaches a battery with a flexible layer on the outside. In fact, this forms the basis of the Examiner's rejection. The missing claim limitation--the tensile elongation percentage of the outer polymer layer--is believed to be rendered obvious by the disclosure of such value on the inner polymer layer of the JP '708 reference. It is further noted that the inner layer of JP '708,

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which has the claimed tensile value, and the outer layer of JP '564 can be made of the same material (polypropylene; see [0016] of JP '564 and [0017] of JP '708). As such, because the flexibility of the outer layer of JP '564 is disclosed as being important, the skilled artisan would be motivated to give it the same tensile value as the flexible inner layer of JP '708.

At the bottom of page 5 of the Appeal Brief, Appellants argue that the term "covering" as used in the instant claims should be construed as a "non-laminated" covering since the specification allegedly shows a separate, i.e., non-laminated, covering in Figure 6. However, this argument is not persuasive. It is well-settled that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In this case, Applicant's assertion that a "covering" should be interpreted as a "separate" or "non-laminated" covering is a clear attempt to read limitations into the claims, there not being any definition of "covering" in the instant specification. It is further noted that the originally-filed instant specification, page 9, line 5 (paragraph [0039] of pre-grant publication), expressly contemplates lamination, as follows:

According to the present invention, to improve the tensile elongation percentage of the laminated high polymer film as the packaging material for forming the battery container 6, at least one of multiple layers of the laminated high polymer film may be made from the extensible high polymer sheet of the present invention.

Thus, there is nothing in the specification to indicate the invention excludes laminated products, and in fact, such laminates are embraced as being part of the invention. Appellants further assert that "[v]isual inspection of Figures 1 and 7 readily reveals that covering 7 is not laminated to adhered to container 6." However, it is apparent that the Figures are *schematic* representations of the invention rather than literal representations. Figure 1 appears to show that elements 6 and 7 are separate elements, but the corresponding text in the specification (cited above) indicates

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that the two may be *laminated*. Furthermore, there is a space between elements 6 and 7 in the Figure. In the practice of the invention, there would clearly be no space in this location. Thus, the Figure is clearly schematic in nature.

In the rejection, the Examiner also has characterized the metal foil (61) of JP '708 as corresponding to the claimed "battery container." It is further noted that in the instant specification, Appellants expressly consider such metal foils as battery containers. As disclosed in paragraph [0037] of the instant specification:

The battery container 6 is formed of a packaging material, examples of which preferably include a foil of a metal such as aluminum or stainless steel, and a laminated high polymer film having a sufficient strength.

As such, the claimed battery container and the battery container of JP '708 are made of the same material, lending further support to the Examiner's position that laminates including metal foils are embraced as being a part of Appellant's invention, and that such laminated structures are not excluded by the language employed by the present claims on appeal.

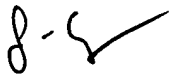
(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,



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